

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-143

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

CATERPILLAR, INC.

Pursuant to the authority vested in the Air Resources Board at Sections 43100, 43101, and 43102 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9; and

Pursuant to the December 15, 1998 Settlement Agreement between the Air Resources Board and Caterpillar, Inc. and any modifications to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following engine and emission control system produced by the manufacturer are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Model Year: 2001

Fuel Type: Diesel

<u>Engine Family</u>	<u>Displacement</u>		<u>Exhaust Emission Control Systems and Special Features</u>
	<u>Liters</u>	<u>Cubic Inches</u>	
1CPXH0442HBK	7.2	442	Turbocharger Charge Air Cooler Electronic Control Module Oxidation Catalytic Converter Direct Diesel Injection

Engine models and codes are listed on attachments.

BE IT ORDERED AND RESOLVED: That the following are the certification exhaust emission standards or family emission limits (FELs), as applicable, (Title 13, California Code of Regulations, Section 1956.8) and certification exhaust emission values for this engine family in grams per brake horsepower-hour under the Federal Test Procedure ("FTP"):

	<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulate Matter</u>
Standards	1.3	15.5	4.0	0.10
Family Emission Limit	n/a	n/a	3.6	n/a
Certification	0.3	1.2	3.1	0.09

BE IT FURTHER RESOLVED: That the above-described certification is subject to the following terms, limitations and conditions:

The above family emission limit(s) (FELs) is an emission level declared by the manufacturer to serve for the averaging, banking and trading program and in lieu of an emission standard for certification. It represents the emission standard applicable to this engine family that must be applied when determining compliance of any model within this engine family or compliance with the corporate average standard(s).

BE IT FURTHER RESOLVED: That pursuant to the Settlement Agreement and any modifications thereof, the aforementioned engine family is also subject to the emission standards, including a "Not-to-Exceed" nitrogen oxides emission standard of 4.5 grams per brake horsepower-hour, under the EURO III tests in the Settlement Agreement. The following are the certification exhaust emission standards and certification exhaust emission values for this engine family in grams per brake horsepower-hour under the EURO III tests:

	<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulate Matter</u>
Standard	1.3	15.5	3.6	0.10
Certification	0.1	0.3	3.1	0.06

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2035 et seq.).

BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

1. The Settlement Agreement is in effect.
2. The manufacturer is in compliance with all applicable certification requirements of the Settlement Agreement.

Engines certified under this Executive Order must conform to all applicable California emission regulations and to all applicable terms and conditions of the Settlement Agreement.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 9<sup>th</sup> day of February 2001.

*Raphael Summerfield*

for R. B. Summerfield, Chief  
Mobile Source Operations Division

ATTACHMENT

Engine Model Summary Form

Manufacturer: Caterpillar Inc.  
Engine category: On-highway MHDD  
EPA Engine Family: 1CPXH0442HBK  
Mfr Family Name: NA  
Process Code: New Submission

A-13-143

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
Cert Eng	3126	330 @ 2400	145	116.9	860 @ 1440	163	79.0	EM, DI, TC, ECM,
1	3126	330 @ 2400	147	118.4	860 @ 1440	163	79.1	EM,DACTCAECM,
2	3126	300 @ 2200	145	107.5	860 @ 1440	162	78.4	EM,DACTCAECM,
3	3126	300 @ 2200	145	107.5	800 @ 1440	151	73.0	EM,DACTCAECM,
4	3126	275 @ 2200	132	97.4	860 @ 1440	162	78.7	EM,DACTCAECM,
5	3126	275 @ 2200	132	97.4	800 @ 1440	152	73.6	EM,DACTCAECM,
6	3126	250 @ 2200	124	91.4	800 @ 1440	151	73.0	EM,DACTCAECM,
7	3126	250 @ 2200	124	91.4	660 @ 1440	128	61.9	EM,DACTCAECM,
8	3126	230 @ 2200	115	85.2	660 @ 1440	126	61.1	EM,DACTCAECM,
9	3126	210 @ 2200	102	75.7	605 @ 1440	118	57.4	EM,DACTCAECM,
10	3126	210 @ 2200	102	75.7	520 @ 1440	105	50.9	EM, DI, TC, ECM,
11	3126	216 @ 2400	101	81.4	520 @ 1440	103	50.1	EM,DACTCAECM,
12	3126	207 @ 2300	98	75.8	520 @ 1440	103	49.7	EM,DACTCAECM,
13	3126	175 @ 2200	89	65.5	420 @ 1440	85	41.3	EM,DACTCAECM,

CAC, CAT

PDI,TS,AC,OC,ECM